



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/628,588

07/28/2003

Jeffrey K. Drogue

6970.02

4659

7590

01/12/2007

David E. Bruhn  
DORSEY & WHITNEY LLP  
Intellectual Property Department  
50 South Sixth Street, Suite 1500  
Minneapolis, MN 55402-1498

EXAMINER

BOGART, MICHAEL G

ART UNIT

PAPER NUMBER

3761

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,588	<b>Applicant(s)</b> DROGUE ET AL.	
	<b>Examiner</b> Michael G. Bogart	<b>Art Unit</b> 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections – 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 13 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter includes the limitation “located in the same room as”. The closest support the Examiner could find for this was the mention in the specification that the invention is intended for use in operating rooms and that the connector is located between a wall connection and the end effective tool. This does not provide specific support for the new limitation such that both the connector and point of use of a vacuum tool are in the same room, only their relationship to a wall port. Even if it can be implied that this describes the elements relationship to a wall, this does not mean that they are in the same room.

### ***Claim Rejections – 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

Art Unit: 3761

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 1-10, 12-14, 17 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciavattoni *et al.* (US 3,665,682; hereinafter "Ciavattoni") in view of Goosen (US 5,019,060).

Ciavattoni teaches vacuum connector (10) located in the same room as the point of use of a vacuum tool (12, 14, 16) and capable of being connected to a vacuum source, the vacuum connector (10) comprising:

- an inlet (64);

- an outlet (84);

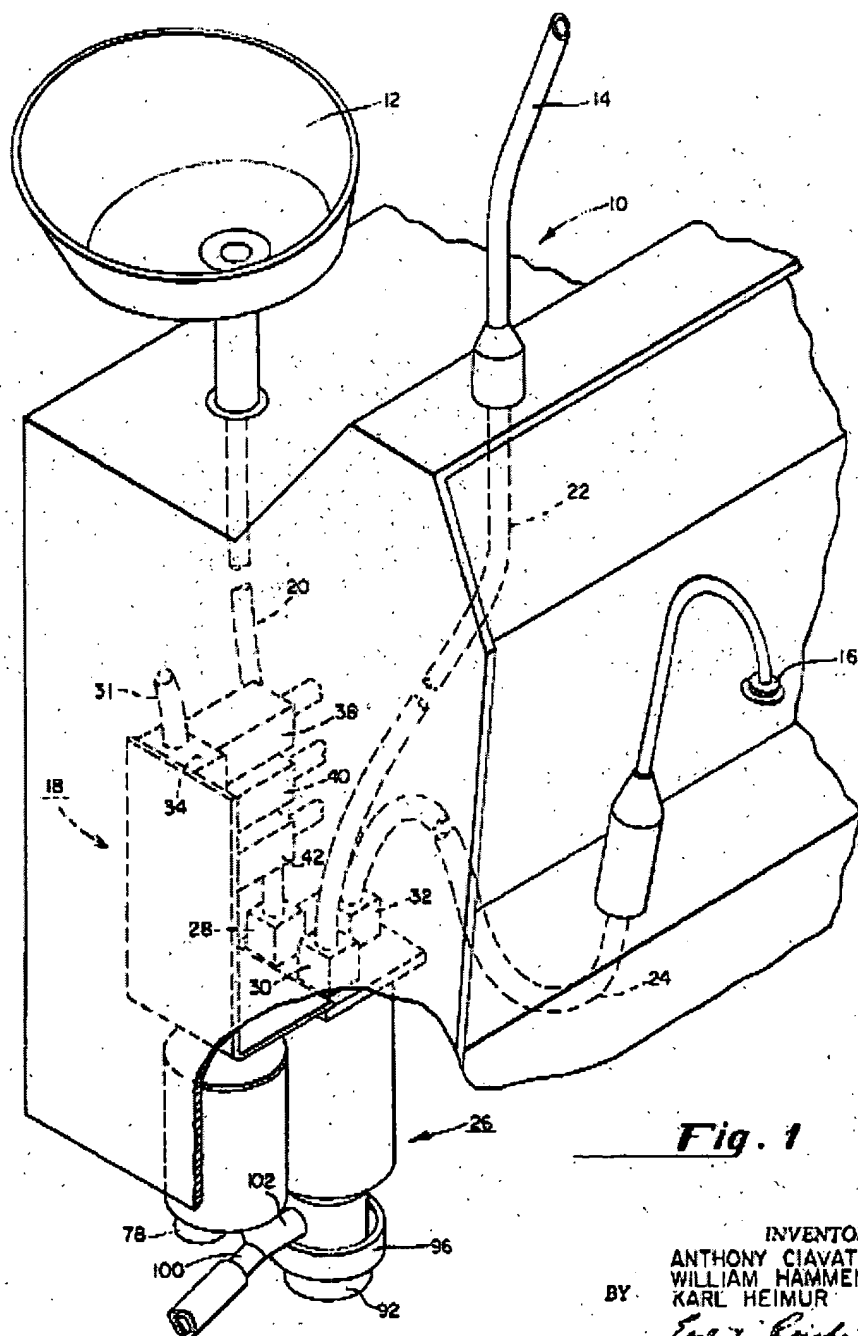
- a separation chamber (26, 68) in communication with the inlet (64);

- a baffle (66, 72) operably mounted in said chamber (26, 68) to cooperate with the inlet (64) capable of optimizing the separation of liquid and gaseous material;

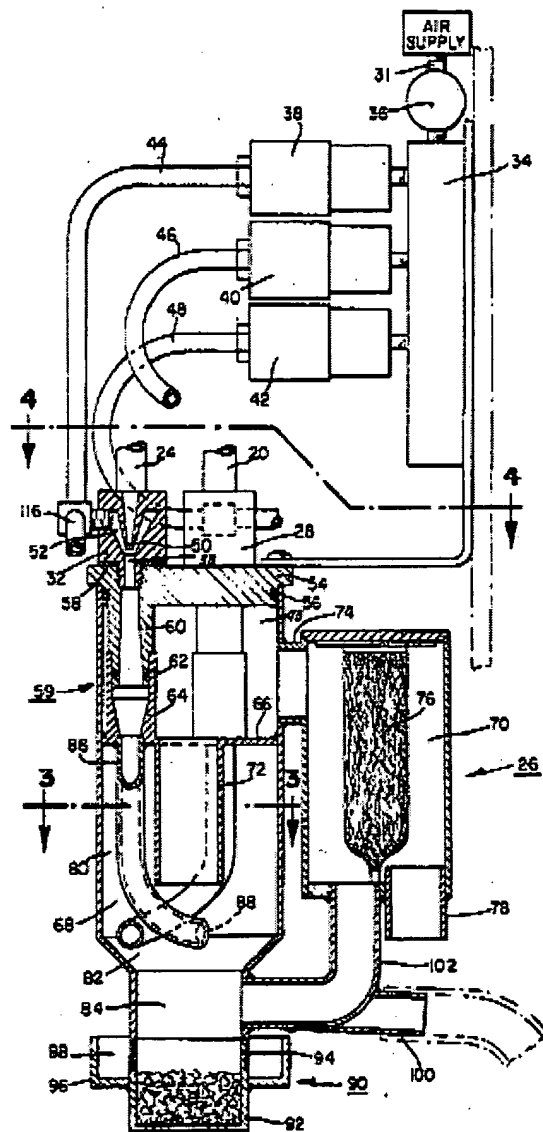
- an exhaust air pathway (72, 73, 74, 70, 78) in fluid communication with the separation chamber (68) and the outlet (84); and

Art Unit: 3761

a fluid pathway (100) separate from the air pathway (72, 73, 74, 70, 78), and in communication with the separation chamber (68) and the outlet (84)(see figures 1 and 2, infra).

**Fig. 1**

INVENTOR.  
ANTHONY CIAVATTONI  
WILLIAM HAMMEN  
KARL HEIMUR  
BY *Earl V. Reichert*  
ATTORNEY.



Regarding claims 1, 2 and 4, Ciavattoni does not expressly teach a measuring device.

Goosen teaches a flow volumetric flow indicator (26)(figure 2, infra).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to add the flow indicator of Goosen to the evacuation apparatus of Ciavattoni in order to provide a means of monitoring the flow rate of the system.

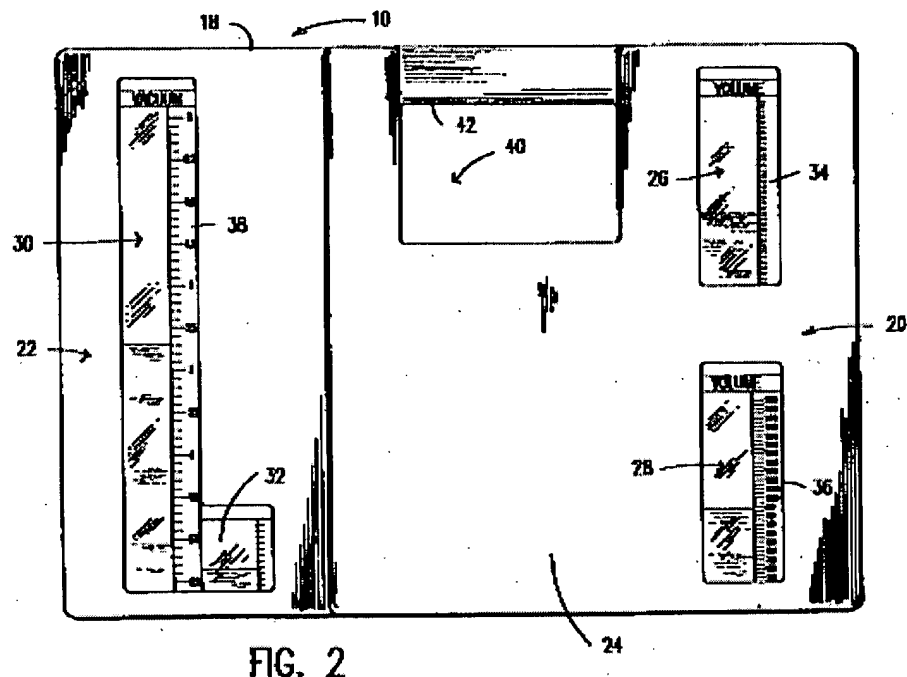


FIG. 2

Regarding claims 10 and 13, Ciavattoni teaches a vacuum source that includes the venturis (28, 30, 32) when air pressure is applied from an upstream source (col. 2, line 69-col. 3, line 25)(figure 5).

Regarding claim 3, Ciavattoni teaches an inlet (30).

Regarding claim 5, Ciavattoni teaches a decontamination unit (70, 76).

Regarding claim 6, Ciavattoni teaches a collection chamber in communication with the separation chamber (26).

Regarding claim 7, Ciavattoni teaches a pressure regulator (36) that effectively regulates the vacuum level that occurs downstream of venturis (28, 30, 32)(col. 2, line 69-col. 3, line 25).

Regarding claims 8 and 14, Ciavattoni in view of Goosen do not expressly disclose a microprocessor-based flow meter.

Merely automating a prior art process is not sufficient to patentably distinguish a claimed invention if no unexpected result can be demonstrated. See *In re Venner*, 262 F.2d 91, 95, 120

Art Unit: 3761

USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.). MPEP § 2144.04. In the instant case, applicants have added electronic calculating means to a flow meter, which can automatically calculate flow rates, etc. This is simply an automation step over the manual calculations which may be performed by the combination of Ciavattoni and Goosen.

Regarding claims 9 and 13, Ciavattoni teaches an end effector (12, 14, 16).

Regarding claims 12 and 17, Ciavattoni teaches a filter (76) and decontamination unit (70, 76).

Regarding claim 18, Ciavattoni teaches that the vacuum source includes a centrifugal separator (68)(col. 2, lines 11-33; col. 3, line 11-col. 4, line 7).

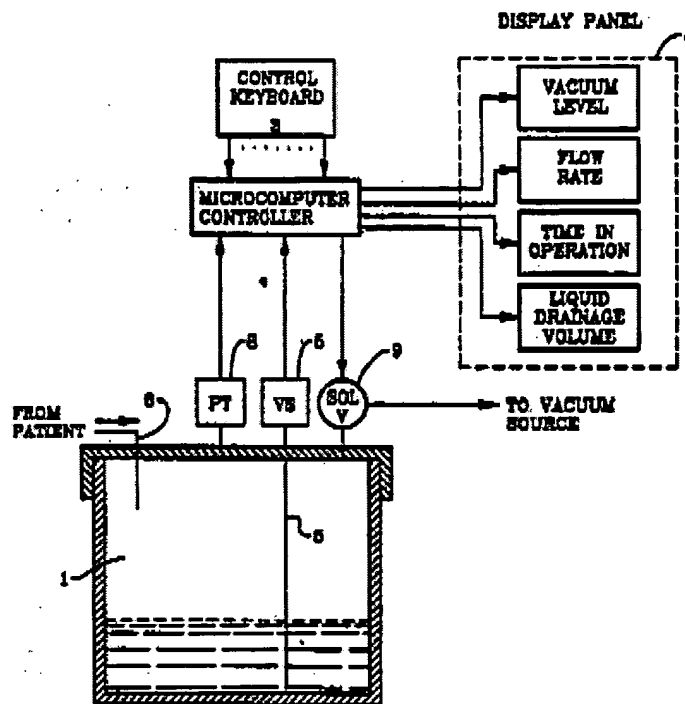
Claims 15 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciavattoni and Goosen as applied to claims 1-10, 12-14, 17 and 18 above, and further in view of Walker (US 5,195,995 A).

Ciavattoni in view of Goosen do not expressly teach a key pad input device.

Walker teaches a keyboard (3) for controlling a medical suction apparatus (see figure 1, *infra*).



Art Unit: 3761



At the time of the invention, it would have been obvious for one of ordinary skill in the art to add the keyboard of Walker to the evacuation apparatus of Ciavattoni in view of Goosen in order to provide a means of controlling the air pressure and vacuum applied to a patient.

### *Response to Arguments*

Applicant's arguments filed 20 October 2006 have been fully considered but they are not persuasive.

Regarding the rejections under 35 USC § 112(1), applicants assert that the specification supports the limitation “located in the same room as”. Applicants point out section [0035] which describes an embodiment “for picking up material at one or more locations at which surgical procedures are performed” and a “at least one wall port at each of the one or more locations.” While it can be reasonably implied that this supports the position of the end effector(s) and

Art Unit: 3761

connector relative to wall ports and therefore at least one wall, this does not require that these elements are located in the same room.

Regarding the rejections under 35 USC § 103, applicants assert that Chiavattoni does not disclose an air pathway in communication with the separation chamber and outlet and a fluid pathway separate from the air pathway, and in communication with the separation chamber and the outlet. This argument is not persuasive because Ciavattoni discloses an exhaust air pathway (72, 73, 74, 70, 78) in communication with the separation chamber (68) and outlet (84) and a fluid pathway (84, 100) separate from the air pathway (72, 73, 74, 70, 78), and in communication with the separation chamber (68) and the outlet (84)(see figure 2, supra). Both the discharge line (100) and exhaust airway (72, 73, 74, 70, 78) are in fluid communication with outlet (84) as there no physical structure preventing fluid from passing between these elements. Also, exhaust fluid (air) is vented from outlet (84) to exhaust chamber (70) via vent (102).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3761


however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Bogart whose telephone number is (571) 272-4933.

In the event the examiner is not available, the Examiner's supervisor, Tatyana Zalukaeva may be reached at phone number (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for formal communications. For informal communications, the direct fax to the Examiner is (571) 273-4933.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Michael Bogart  
5 January 2007

**TATYANA ZALUKAEVA**  
**SUPERVISORY PRIMARY EXAMINER**  
